ABSTRACT OF THE DISCLOSURE

Polygonal data input in a first step is subjected to evaluation in which all edges of the polygon data are ranked in importance on the basis of a volume change caused by removal of that edge. The edges are sorted on the basis of an evaluation value in a third step. In a fourth step, the edge of a small evaluation value is determined to be an edge of a small influence on the general shape and is removed. In a fifth step, a new vertex is determined from the loss of vertex by the edge removal. In a sixth step, a movement of texture coordinates and a removal of the texture after the edge removal are executed on the basis of the area change of the texture due to the edge removal by a predetermined evaluating function. In a seventh step, by repeating the processes in the second to sixth steps, a polygon model approximated to a desired layer can be obtained.